



EDUCATION

Wake Forest University

09/2021-06/2025

- ◆ Bachelor of Science in Statistics & Psychology
- ◆ Total *GPA*: 3.937; Statistic major *GPA*:4.0
- ◆ Core Courses: Introduction to Comp. Science, Learning & Cognitive Science, Intro to Statistical Learning, Intro to Neuroscience, Probability, Multivariable Calculus, Cognitive Psychology, Discrete Mathematics, Intro Regression & DataScience, etc.
- ◆ Dean's List (till now): Fall 2021, Spring 2022, Fall 2022

PUBLICATION

[1] Emily Lu¹, Lynn Li¹, Ciaran Evans^{1*}, Assessing generalizability of a dengue classifier across multiple datasets, PLOS One Journal, Submitted

RESEARCH

Assessing generalizability of a dengue classifier across multiple datasets

08/2022-07/2023

Supervisor: Prof. Ciaran Evans, Wake Forest University

- ◆ Conducted a comprehensive research endeavor aimed at assessing the performance of logistic regression models in the prediction of dengue fever. This investigation utilized publicly available datasets sourced from previous studies, offering a valuable examination of the classifier's generalizability.
- ◆ Focused on three pivotal explanatory variables: age, white blood cell count, and platelet count, to construct a robust predictive model.
- ◆ Sourced and curated diverse datasets collected at varying time points and geographic locations, encompassing a wide spectrum of disease prevalence rates and patient age groups.
- ◆ Rigorously trained distinct logistic regression models for each dataset, ensuring that each model was fine-tuned to the unique characteristics of the data source. Subsequently, these models were evaluated not only on their original datasets (training) but also on external datasets (test) obtained from separate research studies..

Investigating Neural Mechanisms Underlying Attentional Flexibility

08/2022-now

Supervisor: Prof. Anthony Sali, Wake Forest University

- ◆ Conducted an innovative exploration into neural models to enhance our comprehension of the dynamic processes governing shifts in attention readiness.
- ◆ Introduced the groundbreaking Fluctuating Interactions of Attentional Flexibility (FIAF) model, a novel framework that seamlessly integrates previous research findings while also crafting testable hypotheses.
- ◆ Expanded upon existing research that hints at the Ventral Attention Network (VAN) operating as a circuit breaker, adeptly intervening in top-down signals responsible for attention regulation from the Dorsal Attention Network (DAN).
- ◆ Formulated a compelling hypothesis that posits VAN regions as key actors in detecting violations in shift predictions, subsequently transmitting these signals to the DAN for precision adjustments.

How does statistical learning affect attentional flexibility and P300 amplitude in individuals with high ADHD symptoms and healthy control

01/2023-now

Supervisor: Prof. Anthony Sali, Wake Forest University, Attentional Research Lab

Conducted a research study to investigate the influence of statistical learning on attentional flexibility and P300 amplitude in two distinct groups: individuals with high ADHD symptoms and a healthy control group. The primary objectives were:

- ◆ To examine the potential advantages of training interventions in statistical learning applied within Rapid Serial Visual Presentation (RSVP) tasks.
- ◆ To determine whether such interventions could enhance P300 amplitude and attentional flexibility among individuals diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) and to identify any differences in outcomes when compared to a healthy control group.
- ◆ To explore the potential correlation between improvements in ADHD symptoms and an increase in P300 amplitude.
- ◆ Utilized the Eyelink 1000 eye tracker to monitor participants' eye movements during the experimental tasks, ensuring precise measurement of their gaze and attentional focus.

Investigating Attentional Mechanisms in Perceptual Processing Tasks

08/2022-now

Supervisor: Dr. Emily Oor, Wake Forest University

- ◆ Conducted research aimed at exploring attentional mechanisms in perceptual processing tasks.
- ◆ Utilized an innovative approach to investigate the influence of salient stimuli on participants' response times and attention allocation.
- ◆ Delved into the dynamics of attention and perceptual processing, shedding light on how salient stimuli impact response times and the allocation of attention.
- ◆ Provided valuable insights into the interplay between attention and salience, furthering our understanding of cognitive processes..

ACTIVITIES

Jinan University

06/2022 -Present

Online Teaching Assistant in Art history and Statistical Models

- ◆ Successfully managed classes with 30-40 undergraduate students, showcasing effective leadership skills in an online teaching environment.
- ◆ Provided personalized assistance to individual students and strategically planned daily assignments to enhance the learning experience.
- ◆ Collaborated closely with professors, adjusting teaching strategies based on valuable feedback from students to ensure an optimal and adaptive learning environment.

LIT Dance Club, Wake Forest University

09/2021 - Now

President

- ◆ Effectively managed a \$6,000 budget, overseeing expenses related to triweekly club meetings, coaching, and lesson plans for a team of 40 competitive members.
- ◆ Successfully organized annual showcase events, attracting audiences of over 200, and garnered media attention through interviews with local newspapers.
- ◆ Spearheaded logistical arrangements, including reserving practice space, organizing transportation, fostering partnerships, and handling registration for routine performances.

Ballroom Club Dance Showcase, Wake Forest University

03/2017 – 03/2018

Co-organizers

- ◆ Led the management and preparation efforts for an annual showcase attended by 200 audience members in collaboration with fellow team members.
- ◆ Orchestrated the invitation of dancers and skillfully coordinated schedules for rehearsals to ensure a seamless and well-executed event.

SKILLS

- ◆ Proficient with Java; R studio, MATLAB, Python; SPSS; Microsoft Word, Excel, PowerPoint; Google Drive; Social Media (Facebook, Twitter, Instagram, LinkedIn, Slack)
- ◆ Proficient in using eye trackers, EEG, and fMRI in the lab.
- ◆ Profound research experience in dealing with heavy data, data analysis and model constructing.
- ◆ English Proficiency: Proficient in English Reading, Writing, Speaking and Listening, TOEFL (113)